

2. Descriptions of sixteen new Species of Shells.

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[Received February 6, 1888.]

(Plate XI.)

LIMA SMITHI, sp. nov. (Plate XI. fig. 12.)

L. testa suboblique orata, leviter inflata, tenuis, alba; costis circ. 40, rotundatis, mediocriter elevatis, levissime undulatis instructa; area antica mediocriter elongata, leviter excavata, rugoso-plicata; auriculis anticas parvis, declivibus, posticis magnis; area cardinalis excavata.

*Long. 63, lat. 51 millim.**Hab.* Japan.

Resembling in form *L. excavata*, but very decidedly ribbed. The auricles, cardinal area, and anterior lunule are much the same as in the gigantic Japanese species described by me in the Society's 'Proceedings' for 1883 (*L. goliath*), but that species is smooth, excepting at the sides, and not so inflated.

The size of the only specimen known of this interesting new species, which forms part of our National Collection, is small as compared with *L. excavata*; but although it has much the look of a full-grown shell, it is impossible to say that it might not attain to the size even of *L. goliath*. I have, however, no doubt that it is specifically distinct.

LIMA CONCENTRICA, sp. nov. (Plate XI. fig. 20.)

L. testa rotunde flabelliformis, obliqua, lata, compressa, tenuiuscula, subpellucida, cæruleo-alba, concentrica fusco multifasciata, epidermide ferruginea induta; laminis numerosis, concentricis, parum elevatis, fusco anguste marginatis, et costis angustis circ. 80, confertissimis, complanatis, interruptis, subrugosis, partim divaricatis, superne attenuatis, interstitiisque minutissime crenulatis et puncturatis sculpta; area cardinalis angusta, mediocriter excavata; auriculis purviusculis, fere æqualibus, anticas plicatis, rotunde inflexis; pagina interna nitida, cæruleo-alba, margine externo minute crenulata, tenuiter fusco circumdata.

*Long. 30, maj. lat. 27 millim.**Hab.* Hongkong.

A very distinct and characteristic species. It is broad and rather flat; the radiating ribs are very narrow and close-set, and the interstices towards the umbones peculiarly punctured. The numerous concentric laminae are but little raised, but they are rendered conspicuous by being edged with brown.

Since the publication of the monograph of the genus *Lima* in the 'Conchologia Iconica,' the following species have been added:—

L. zealandica, Sowb., Proc. Zool. Soc. 1876, p. 754.*L. goliath*, Sowb., Proc. Zool. Soc. 1883, p. 30.

- L. lata*, Smith, Rep. on the Lamellibr. of the 'Challenger.'
- L. tahitensis*, Smith, ibid.
- L. torresiana*, Smith, ibid.
- L. confusa*, Smith, ibid.
- L. laminifera*, Smith, ibid.
- L. dunkeri*, Smith, = *japonica*, Dunker, not of A. Adams, Sowerby, Conch. Icon. 1872.

MALLETIA ANGULATA, sp. nov. (Plate XI. fig. 15.)

M. testa oblonga, compressiuscula, valde inaequilatera, epidermide cornea, nitida induta; antice breviuscula, postice elongata. Margo dorsi posticus rectus angulatus, auriculatus. Margo ventralis antice oblique arcuatus, postice sinuatus. Umbones leviter prominentes, acutiusculi. Cardine rectilineo, angusto, dentibus numerosis minutis instructo. Ligamentum longum angustissimum, nigro-fuscum.

Diam. antero-post. 26, umbono-marg. 14 millim.

Hab. Bay of Bengal, 200 fath.

Of the few species known of this rare genus, the present is one of the most striking. It is distinguished from its congeners chiefly by the remarkable sinuosity of the posterior side, forming an angular auricle at the dorsal margin, and a broad lobe at the posterior extremity. The hinge is the same as in other species of the genus.

CYPRAEA HUNTERFORDI, sp. nov. (Plate XI. figs. 1-3.)

C. testa pyriformi, solida, lata, depressiuscula, politissima, in parte dorsali griseo interruptim trifasciata, maculis minutis, pallidis, fuscis, confluentibus lentiginosa; spira immersa, concaviuscula, inconspicua; lateribus latis, basibusque flavescente lacteis, maculis fuscis, numerosis, rotundatis, superne marginatis; basi concaviuscula; margine columellari 20, concoloribus, parvis, tenuiter productis, basalibus majoribus, obliquis, instructo; margine externo superne incurvo, dentibus 24, brevibus, regularibus munito.

Long. 39, diam. 24, alt. 19 millim.

Hab. Japan?

This shell (which is in perfect condition) was purchased in Japan some years ago by Dep.-Surgeon-General R. Hungerford, but he had no guarantee that it was taken in Japanese waters, and, so far as I know, no other specimen has been discovered. It is a species not likely to be confounded with any other. It is pyriform but rather depressed, and quite unlike *C. pyriformis*; the greyish bands crossing the back give the idea of a young shell that has not got its full colouring, but its sides are thickly enamelled, showing it to be thoroughly adult. The spots bordering the lateral enamel are unusually high towards the back of the shell, leaving the margins and base of a plain cream-colour.

COLUMBELLÆ FILBYI, sp. nov. (Plate XI. figs. 8, 9.)

C. testa fusiformi, fusca; maculis albidis irregulariter aspersa;

zona angusta, albida, interrupta, infra medium cincta. Spira elata, acuminata; sutura impressa; anfractus 11, leviter convexi; primi 2½ politi, simplices; sequentes 4, costis lœvigatis, rotundatis instructi; cæteri lœvigati, subtilissime striati et oblique malleati; ultimus vix ventricosus, spiram leviter superans, infra medium valde contractus, oblique sulcatus, in caudam brevem recurvum desinens, et canalem aperturalem formans. Apertura ovato-oblonga, spiram subæquans, fauce pallide violacea; columella polita, albida, fusco tincta, superne plica unica, minuta, curvata munita, ad medium angulata; labrum acutum, extus leviter incrassatum, intus subobsolete liratum.

Long. 30, maj. lat. 12 millim.

Hab. South Sea?

A fine handsome species, one of the largest of the genus, and entirely different from any hitherto known or described. I found two perfect specimens of this species in the collection of the late Mr. D. Filby of Hamburg with a label "South Sea," but even this indefinite locality is not to be relied on. The largest of the two, which I have taken for the type, forms part of the gift made by Mrs. Filby to the Hamburg Museum. The second specimen is about 27 millim. in length, and of the same form, proportions, colour, and markings as the type.

CORALLIOPHILA TURRITA, sp. nov. (Plate XI. fig. 11.)

C. testa elongata, turrita, albida, pallide roseo tincta. Spira perelata; anfractus 9, lente accrescentes, convexi, obscure angulati, suboblique plicati (plicis rotundatis, confertiusculis), ubique spiraliter dense squamoso-lirati; anfr. ultimus parvus, rotundatus, infra medium contractus, et aliquanto productus. Apertura ovata; columella infra medium acute angulata; canali brevissimo; labrum crenulatum.

Long. 23, maj. diam. 9, apert. long. 6, lat. 4 millim.

Hab. Mauritius.

A very narrow turreted species, with a small mouth, long spire, and ribbed, scabrous, slightly angular whorls.

TROCHUS (GIBBULA ?) PONSONBYI, sp. nov. (Plate XI. fig. 5.)

T. testa subglobosa, anguste umbilicata, tenuiuscula, pallida, ad basin fusco maculata. Anfractus 5, convexi celeriter accrescentes; primi 2 lœves; cæteri angulati, ad angulum serie tuberculorum coronati; supra angulum spiraliter trisulcati; infra obscure lirati. Anfr. ultimus inflatus, superne serie tuberculorum (circ. 12) coronatus; infra corona uniliratus; ad basin convexus, ventricosus, rotundatus, liris (circ. 8) acutiusculis instructus. Apertura semilunaris; columella tenuiter callosa, superne contracta, infra medium turgidula.

Alt. 13½, diam. 14, apert. long. 9, maj. lat. 7 millim.

Hab. Port Elizabeth, South Africa.

In the absence of the operculum it is impossible to say with certainty to what genus or section this species belongs, although I

have little doubt it will prove a *Gibbula*. The base is unusually convex and ventricose, the spire rather shortly conical, and the upper angle coronated with rounded tubercles. The mouth is rather wide, and the umbilicus narrow. The spiral ridges on the base are rather close, and the upper ones distant.

I have only seen a single dead specimen of this somewhat remarkable shell, which has been lent to me for description by Mr. J. Ponsonby.

TROCHUS (ZIZIPHINUS) EXQUISITUS, sp. nov. (Plate XI. figs. 6, 7.)

T. testa conica, convexiuscula, profunde umbilicata, pallide aureo-fusca, fusco multilineata. Anfractus 6½, declives, levissime convexi; cingulis numerosis, fuscis, parum elevatis ubique ornati; sutura distincta, planato impressa; anfr. ultimus inferne obtuse angulatus; basi convexiuscula. Apertura subquadrata; columella rectiuscula, leviter obliqua.

Alt. 4½, lat. 4 millim.

A beautiful little species, encircled throughout with numerous raised brown ridges.

ENGINA ANGULATA, sp. nov. (Plate XI. fig. 10.)

E. testa acuminato-fusiformi, albida, fulvo-fasciata; spira turrita, acutissima; anfractus 8, acute biangulati, rugoso-plicati et spiraliter lirati; ultimus spiraliter valide liratus, irregulariter plicatus, varicibus acutis muricatis hic illic irregulariter munitus, superne angulatus, supra angulum leviter concavus, infra convexiusculus, infra medium valde contractus, in caudam breviusculam desinens, et canalem aperturalem formans. Apertura parviuscula, angulata, intus dentato-costata; columella uniplacata; labrum acutum, crenulatum.

Long. 22, maj. diam. 12½ millim.

Hab. Hongkong.

Distinguished by its crisply ridged angular whorls, and raised, rather sharp longitudinal ribs.

PLEUROTOMA FULTONI, sp. nov. (Plate XI. fig. 17.)

P. testa elongata, anguste turrita, pallide grisea, longitudinaliter fusco irregulariter sparsim strigata, utrinque nigro-fusco tincta. Spira elongatissima, acuta; anfractus 11, planato-declives, minutissime cancellati, spiraliter conspicue albo tricarinati, interdum lira inconspicua interviente; sutura vix impressa, linea fusca notata; anfr. ultimus leviter convexus, 7-8 carinatus, ad basin mediocriter attenuatus, et aliquanto productus. Apertura elongato-ovata, parva; labrum haud profunde sinuatum; canali brevissimo.

Long. 25, maj. diam. 7, apert. long. 7, lat. 2½ millim.

Hab. Port Elizabeth, South Africa.

Of this characteristic species I received some years ago several specimens in very worn condition from the Cape of Good Hope.

They were too imperfect satisfactorily to describe. Mr. Bairstow has now sent me a specimen in very fair condition, which, though not absolutely perfect, shows all the essential characters of the species.

PLEUROTOMA BULOWI, sp. nov. (Plate XI. fig. 16.)

P. testa elongato-fusiformi, utrinque attenuata, pura alba. Anfractus 13, primi 2 rotunde convexi, politi; cæteri acute carinati, ubique dense spiraliter lirati; spira acutissima. Anfractus ultimus leviter convexus, ad basin valde contractus et multo productus. Apertura ovata, sinu elongato, angusto emarginata; canali gracili, elongato.

Long. 35, maj. diam. 10.

Hab. China Sea.

A pure white, keeled, and closely ridged species of the typical form of *P. babylonica*.

TURRITELLA ROBUSTA, sp. nov. (Plate XI. fig. 18.)

T. testa curta, solida, albida; anfractus 10, modice accrescentes, convexi, rotundati, spiraliter regulariter 7 lirati; liris acutis; sutura impressa; anfr. ultimus subventricosus, rotundatus, liris 16, ad basin minoribus. Apertura subcircularis; peristoma crenulata; columella percrassa.

Long. 29, maj. diam. 13, apert. long. 6½, lat. 6 millim.

Hab.?

A remarkably short, solid, sharply lirate species. Specimen at present unique.

CASSIS CERNICA, sp. nov. (Plate XI. fig. 19.)

C. testa ovato-oblonga, lœvis, polita, fulvescente lactea; maculis fuscis pallidiusculis, oblongo-quadratis, sex-fasciatim dispositis picta. Spira elata, ad apicem acutiuscula, fusca; sutura impressa; anfractus 6, convexi, rotundati; ultimus elongatus. Apertura oblonga; fauce lœvi; labrum arcuatum, mediocriter incrassatum, antice dentatum; margine externo leviter reflexo, fusco vivide notato; columella callosa, polita, basin versus plicata.

Long. 32, maj. lat. 17 millim.

Hab. Mauritius.

Among several specimens of this pretty little species recently received from Mauritius there is some variation in form, one or two of them being stouter than the type. The smallest specimen is 23 millim. in length. There is but little variation in the colouring.

HELIX BOXALLI, sp. nov. (Plate XI. fig. 13.)

H. testa globoso-depressa, anguste sed profunde umbilicata, fusca, fascia nigra pallido marginata ad peripheriam cincta; spira depressa; anfractus 5½, primi 2½ rotunde convexi, politi; cæteri planato-convexi, granulis minutis, aculeatis, et pilis erectis regulariter et dense scabri; sutura impressa; anfr. ultimus subacute angulatus, supra angulum planato-convexus, infra sub-inflatus. Apertura latiuscula, subrotundata, vix obliqua, intus

violacea, polita, zona externa transmeante et limbum attingente; peristoma expansum; margine dextro tenue, leviter reflexum; columellari leviter incrassatum, rotunde reflexum, umbilicum partim obtigente.

Diam. 32, alt. 15, apert. long. 15, lat. 13 millim.

Hab. Mindanao.

A species of very distinct character. The whole surface (excepting that of the nuclear whorls) is covered with prickly granules, surmounted by short, erect bristly hairs. Otherwise the shell is somewhat like *H. succincta* (H. Adams) of the Isle of Formosa, but with a more depressed spire and ventricose base.

A single specimen was brought by Dr. Hungerford from the Island of Mindanao. The shell is in perfect condition.

HELIX CYCLOSTREMOIDES, sp. nov. (Plate XI. fig. 14.)

H. testa late et perspective umbilicata, depresso, sordide alba, ubique corrugata; spira concavo-depressa; anfractus 5, celeriter accrescentes; primi 2 laves, fusco tincti; cæteri concavi, carina elevata serrulata marginati; ultimus acute tricarinatus; carina mediana maxima. Apertura hexagonalis; peristoma acute triangulatum.

Diam. 11, alt. 6 millim.

Hab. M'tul, between Morocco and Mazagan.

A very remarkable little species submitted to me for description by Mr. J. Ponsonby, who suggested the name “*cyclostremoides*” from its resemblance to some of the species of the marine genus *Cyclostrema*. The three keels are very conspicuous, especially the centre one. The whole surface of the shell is curiously corrugated.

CY THEREA (CARYATIS) HUNGERFORDI, sp. nov. (Plate XI. fig. 4.)

C. testa cordata, valde inæquilateralis, tenuis, leviter inflata, alba, antice concentrica sulcata, deinde obscure irregulariter rugata. Umbones prominentes, incurvati, subspirali. Margo dorsalis anticus brevis, leviter arcuatus; posticus elongatus, declivis, vix arcuatus, obtuse angulatus; ventralis arcuatus. Lunula lata, vix impressa. Area postica elongata, rarer concava. Ligamentum anguste elongatum. Dentes cardinales valvæ sinistræ duo, inæquales; antico valde prominente, acutiusculo, postico lato, lamellari, fossa lata et profunda, subtrigona diviso, fovea excarata antice et postice instructo. Cardo in valva dextra, dentibus duobus approximatis, acutissimis valde prominentibus, antice lamina marginali angulato-elevata, postice lamina obliqua, elevata, sinuosa, partim divisa munitus; profunde interfossatus.

Diam. antero-post. 20, umbono-marg. 17, crass. 14 millim.

Hab. Hongkong (Dep.-Surg.-Gen. Hungerford).

A single specimen in perfect condition of this interesting species was found by Dr. Hungerford at Hongkong, together with two perfect specimens of a somewhat similar shell, with the same *Iso-cardia*-like incurved umboes, which I found to be Arthur Adams's *Callocardia guttata* (Ann. & Mag. Nat. Hist. 1864, ser. 3, xii).

